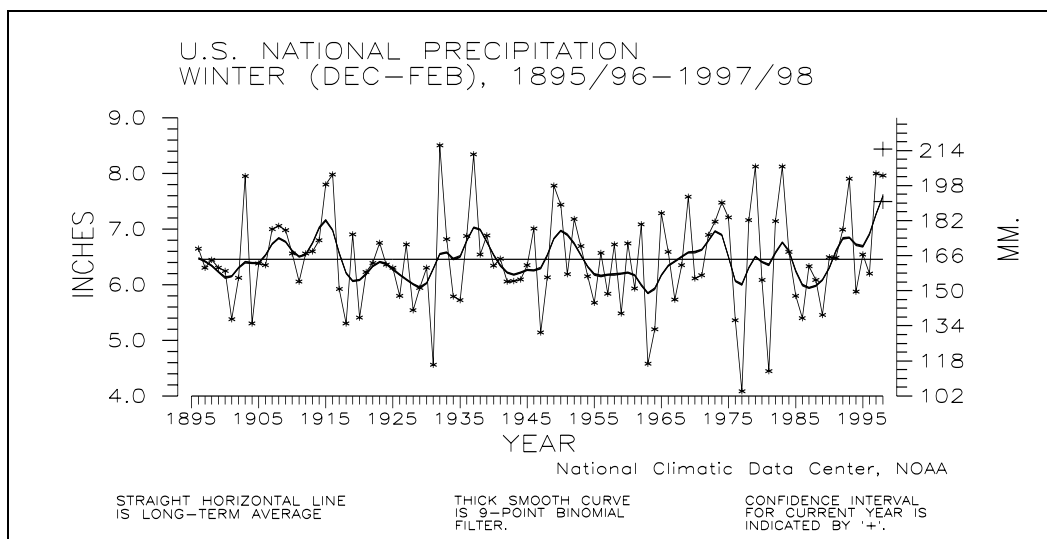
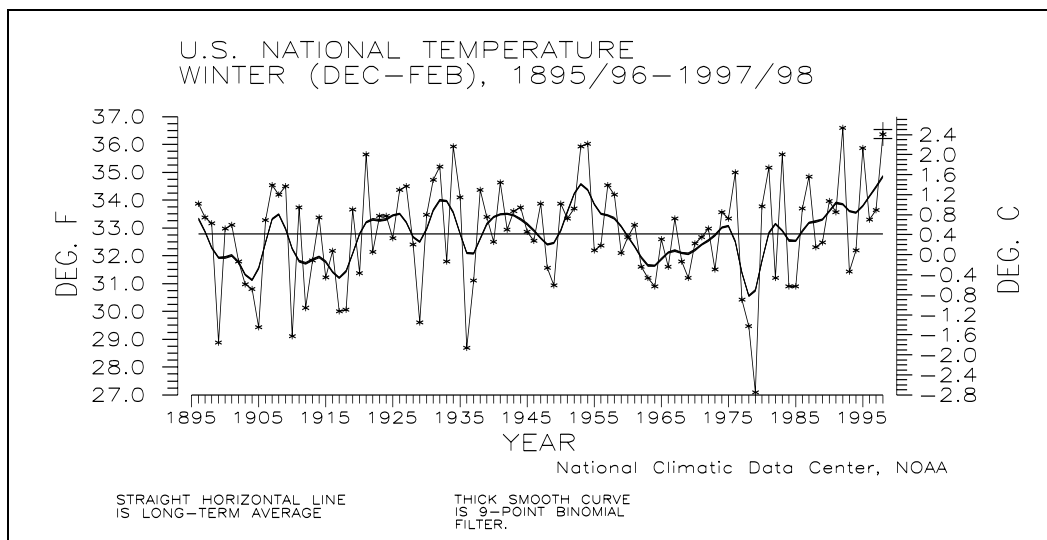


# CLIMATE VARIATIONS BULLETIN



This CLIMATE VARIATIONS BULLETIN (CVB) is a preliminary report that puts current monthly climate anomalies into historical perspective using climate databases archived at the National Climatic Data Center (NCDC). It is issued on a monthly basis. Supplemental sections are included which address seasonal and annual perspectives, when appropriate.

Current data are based on preliminary reports from River Forecast Center stations and First and Second Order airport stations obtained from the National Weather Service (NWS) Climate Prediction Center and preliminary tornado statistics obtained from the NWS National Severe Storms Forecast Center. THE CURRENT DATA SHOULD BE USED WITH CAUTION. These preliminary data are useful for estimating how current anomalies compare to the historical record, however the actual values and rankings for the current year will change as the final data arrive at NCDC and are processed.

The following NCDC datasets are used for the historical data: the climate division drought database (TD-9640), the hurricane datasets (TD-9636 and TD-9697), the tornado dataset (STORM DATA), and the monthly station dataset (LCD supplemental files). It should be noted that the climate division drought database consists of monthly data for 344 climate divisions in the contiguous United States. These divisional values are calculated from the 6000+ station Cooperative Observer network.

If you are a climate researcher and would like to order copies of the historical datasets used to make graphs of the type in this report, call 704-271-4994 or fax a letter to 704-271-4876 or mail a letter to the address given below, ATTN: Research User Services.

All other questions or requests for data should be made by calling 704-271-4800 or sending a fax to 704-271-4876 or by writing to:

National Climatic Data Center, NOAA  
Federal Building  
151 Patton Avenue, Room 120  
Asheville, NC 28801-5001

If you use any of the information from this CVB, please identify "National Climatic Data Center, NOAA" as the source.

# UNITED STATES FEBRUARY AND WINTER CLIMATE IN HISTORICAL PERSPECTIVE

William O. Brown  
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**TABLE 1.** PRECIPITATION AND TEMPERATURE RANKS, BASED  
ON THE PERIOD 1895-1998. 1 = DRIEST/COLDEST,  
104 = WETTEST/WARMEST FOR FEBRUARY 1998,  
104 = WETTEST/WARMEST FOR JAN-FEB 1998,  
103 = WETTEST/WARMEST FOR SEP 1997-FEB 1998,  
103 = WETTEST/WARMEST FOR MAR 1997-FEB 1998.

REGION	FEB 1998	JAN-FEB 1998	SEP 1997- FEB 1998	MAR 1997- FEB 1998
-----	----	-----	-----	-----
PRECIPITATION:				
NORTHEAST	81	93	49	42
EAST NORTH CENTRAL	78	77	22	25
CENTRAL	53	62	19	46
SOUTHEAST	102	103	103	96
WEST NORTH CENTRAL	76	90	65	74
SOUTH	69	94	78	91
SOUTHWEST	97	67	80	83
NORTHWEST	55	69	50	85
WEST	104	102	103	97
NATIONAL	103	104	91	92
TEMPERATURE:				
NORTHEAST	103	104	92	65
EAST NORTH CENTRAL	104	104	102	92
CENTRAL	100	102	93	51
SOUTHEAST	69	81	49	35
WEST NORTH CENTRAL	101	98	100	91
SOUTH	79	91	75	41
SOUTHWEST	56	84	74	82
NORTHWEST	87	99	95	95
WEST	45	84	88	101
NATIONAL	99	104	100	89

**TABLE 2.** EXTREMES, 1961-90 NORMALS, AND 1998 VALUES FOR FEBRUARY. IT SHOULD BE NOTED THAT THE 1998 VALUES WILL CHANGE WHEN THE FINAL DATA ARE PROCESSED.

REGION	PRECIPITATION (INCHES)					
	DRIEST		WETTEST		NORMAL	1998
-----	VALUE	YEAR	VALUE	YEAR	PCPN	PCPN
-----	-----	-----	-----	-----	-----	-----
NORTHEAST	.70	1987	5.43	1900	2.65	3.33
EAST NORTH CENTRAL	.31	1987	2.40	1922	.95	1.26
CENTRAL	.67	1947	5.46	1909	2.64	2.62
SOUTHEAST	1.36	1898	7.16	1903	4.15	6.94
WEST NORTH CENTRAL	.30	1985	1.07	1936	.55	.71
SOUTH	.66	1916	5.63	1903	2.30	2.63
SOUTHWEST	.14	1972	2.07	1980	.80	1.42
NORTHWEST	.69	1920	5.95	1904	2.86	3.06
WEST	.21	1964	7.14	1998	2.27	7.14
NATIONAL	.96	1947	3.05	1903	1.98	2.94*

\* PRELIMINARY VALUE, CONFIDENCE  
INTERVAL + OR - .15 INCHES

REGION	TEMPERATURE (DEGREES F)					
	COLDEST		WARMEST		NORMAL	1998
-----	VALUE	YEAR	VALUE	YEAR	TEMP	TEMP
-----	-----	-----	-----	-----	-----	-----
NORTHEAST	11.6	1934	31.6	1984	23.3	31.5
EAST NORTH CENTRAL	1.1	1936	31.7	1998	17.6	31.7
CENTRAL	20.6	1978	41.8	1930	32.2	41.2
SOUTHEAST	37.8	1895	56.4	1927	47.1	50.0
WEST NORTH CENTRAL	2.7	1936	34.5	1954	22.2	31.1
SOUTH	33.7	1905	53.5	1930	45.2	48.5
SOUTHWEST	25.1	1903	42.8	1995	35.9	36.1
NORTHWEST	23.3	1933	39.7	1963	33.5	36.2
WEST	32.6	1903	48.8	1963	42.7	42.0
NATIONAL	26.3	1899	42.1	1954	34.3	39.4*

\* PRELIMINARY VALUE, CONFIDENCE  
INTERVAL + OR - .3 DEG. F.

**TABLE 3.**

STATISTICS FOR SELECTED RIVER BASINS: PRECIPITATION RANKING FOR OCT-FEB 1997-98, WHERE RANK OF 1 = DRIEST, 103 = WETTEST, BASED ON THE PERIOD 1895 TO 1998, AREAL PERCENT OF THE BASIN EXPERIENCING SEVERE OR EXTREME LONG-TERM (PALMER) DROUGHT, AND AREAL PERCENT OF THE BASIN EXPERIENCING SEVERE OR EXTREME LONG-TERM (PALMER) WET CONDITIONS, AS OF FEBRUARY 1998. RIVER BASIN REGIONS AS DEFINED BY THE U.S. WATER RESOURCES COUNCIL.

RIVER BASIN -----	PRECIPITATION RANK -----	% AREA DRY -----	% AREA WET -----
MISSOURI BASIN	80	.0%	32.4%
PACIFIC NORTHWEST BASIN	38	4.6%	15.0%
CALIFORNIA RIVER BASIN	100	.0%	95.8%
GREAT BASIN	67	.0%	10.4%
UPPER COLORADO BASIN	9	.0%	6.6%
LOWER COLORADO BASIN	76	3.7%	7.9%
RIO GRANDE BASIN	56	.0%	4.9%
ARKANSAS-WHITE-RED BASIN	86	.0%	19.1%
TEXAS GULF COAST BASIN	86	.0%	39.0%
SOURIS-RED-RAINY BASIN	49	11.5%	20.8%
UPPER MISSISSIPPI BASIN	41	.0%	.0%
LOWER MISSISSIPPI BASIN	68	.0%	.0%
GREAT LAKES BASIN	19	20.8%	15.2%
OHIO RIVER BASIN	13	.0%	.0%
TENNESSEE RIVER BASIN	38	.0%	.0%
NEW ENGLAND BASIN	35	1.2%	7.7%
MID-ATLANTIC BASIN	82	.0%	2.6%
SOUTH ATLANTIC-GULF BASIN	103	.0%	55.4%

**TABLE 4.** EXTREMES, 1961-90 NORMALS, AND 1998 VALUES  
FOR JANUARY-FEBRUARY

REGION	PRECIPITATION (INCHES)					
	DRIEST VALUE	YEAR	WETTEST VALUE	YEAR	NORMAL PCPN	1998 PCPN
NORTHEAST	2.38	1980	10.18	1979	5.49	7.38
EAST NORTH CENTRAL	.99	1987	3.56	1971	2.06	2.63
CENTRAL	2.34	1963	13.00	1950	5.16	5.92
SOUTHEAST	3.62	1898	13.49	1936	8.28	13.30
WEST NORTH CENTRAL	.64	1931	1.97	1936	1.16	1.54
SOUTH	1.96	1943	8.50	1932	4.39	6.50
SOUTHWEST	.36	1924	4.77	1993	1.62	1.87
NORTHWEST	2.60	1985	10.71	1909	6.66	7.59
WEST	1.82	1984	12.66	1969	4.85	12.25
NATIONAL	2.73	1977	6.01	1998	4.05	6.01
REGION	TEMPERATURE (DEGREES F)					
	COLDEST VALUE	YEAR	WARMEST VALUE	YEAR	NORMAL TEMP	1998 TEMP
NORTHEAST	15.6	1904	30.3	1998	22.2	30.3
EAST NORTH CENTRAL	3.7	1936	26.5	1998	15.3	26.5
CENTRAL	20.4	1978	40.2	1932	30.2	39.1
SOUTHEAST	38.9	1978	55.3	1932	45.6	49.6
WEST NORTH CENTRAL	6.6	1936	28.6	1992	19.3	25.7
SOUTH	34.6	1978	49.8	1952	42.9	47.5
SOUTHWEST	26.7	1949	39.3	1986	33.5	35.6
NORTHWEST	20.6	1949	37.5	1934	31.0	34.9
WEST	30.2	1949	46.1	1986	40.5	42.2
NATIONAL	25.5	1979	37.5	1998	32.1	37.5

**TABLE 5.** TEMPERATURE AND PRECIPITATION RANKINGS FOR  
 DECEMBER 1997-FEBRUARY 1998, BASED ON THE PERIOD  
 1895-96 TO 1997-98.  
 1 = DRIEST/COLDEST, 103 = WETTEST/HOTTEST.

REGION -----	PRECIPITATION -----	TEMPERATURE -----
NORTHEAST	63	102
EAST NORTH CENTRAL	42	103
CENTRAL	35	102
SOUTHEAST	103	72
WEST NORTH CENTRAL	79	99
SOUTH	99	81
SOUTHWEST	61	63
NORTHWEST	36	92
WEST	99	70
NATIONAL	97	102



**TABLE 6.** EXTREMES, 1961-90 NORMALS, AND 1997-98 VALUES  
FOR WINTER, DECEMBER-FEBRUARY

REGION	PRECIPITATION (INCHES)				NORMAL PCPN	1998 PCPN
	DRIEST VALUE	YEAR	WETTEST VALUE	YEAR		
NORTHEAST	4.56	1980	13.97	1979	8.94	9.27
EAST NORTH CENTRAL	1.61	1931	5.55	1969	3.50	3.27
CENTRAL	4.24	1963	17.30	1950	8.60	7.95
SOUTHEAST	5.77	1938	17.81	1998	12.15	17.81
WEST NORTH CENTRAL	.84	1931	2.90	1969	1.81	2.07
SOUTH	3.57	1918	13.12	1932	6.88	9.67
SOUTHWEST	.93	1904	6.53	1993	2.58	2.78
NORTHWEST	3.86	1977	15.73	1965	10.69	9.65
WEST	2.52	1977	15.87	1969	7.18	14.02
NATIONAL	4.08	1977	8.50	1932	6.35	7.96*

\* PRELIMINARY VALUE, CONFIDENCE  
INTERVAL + OR - .47 INCHES

REGION	TEMPERATURE (DEGREES F)				NORMAL TEMP	1998 TEMP
	COLDEST VALUE	YEAR	WARMEST VALUE	YEAR		
NORTHEAST	16.6	1918	30.7	1932	23.7	29.8
EAST NORTH CENTRAL	8.4	1936	26.6	1998	16.4	26.6
CENTRAL	23.9	1978	40.8	1932	31.1	37.4
SOUTHEAST	41.2	1978	55.5	1932	46.2	48.4
WEST NORTH CENTRAL	9.5	1979	27.6	1992	19.4	25.8
SOUTH	38.0	1905	48.6	1952	43.1	45.7
SOUTHWEST	27.3	1933	38.4	1981	33.2	34.2
NORTHWEST	21.7	1949	37.2	1934	30.5	33.4
WEST	31.7	1949	43.9	1981	39.9	40.9
NATIONAL	27.1	1979	36.6	1992	32.3	36.4*

\* PRELIMINARY VALUE, CONFIDENCE  
INTERVAL + OR - .2 DEG. F.

# U.S. NATIONAL TEMPERATURE FEBRUARY, 1895–1998

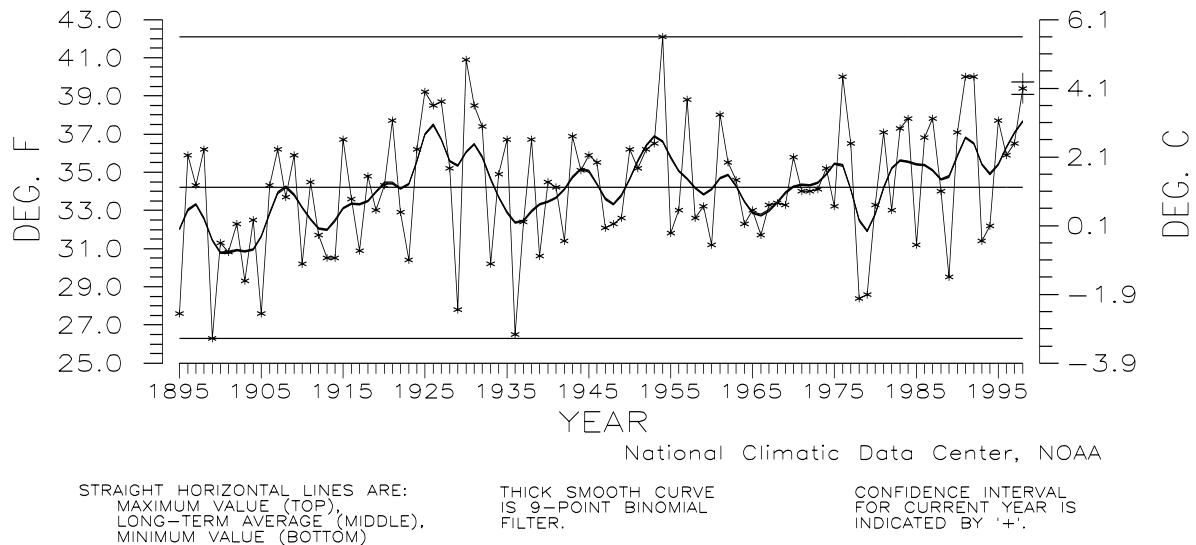


Figure 1: Preliminary data for February 1998 indicate that temperature averaged across the contiguous United States was much above the long-term mean ranking as the sixth warmest February since 1895. Nearly 35% of the country was much warmer than normal while none of the country was much cooler than normal. Seven of the last nine such months have been much above the long-term mean.

# U.S. NATIONAL PRECIPITATION FEBRUARY, 1895–1998

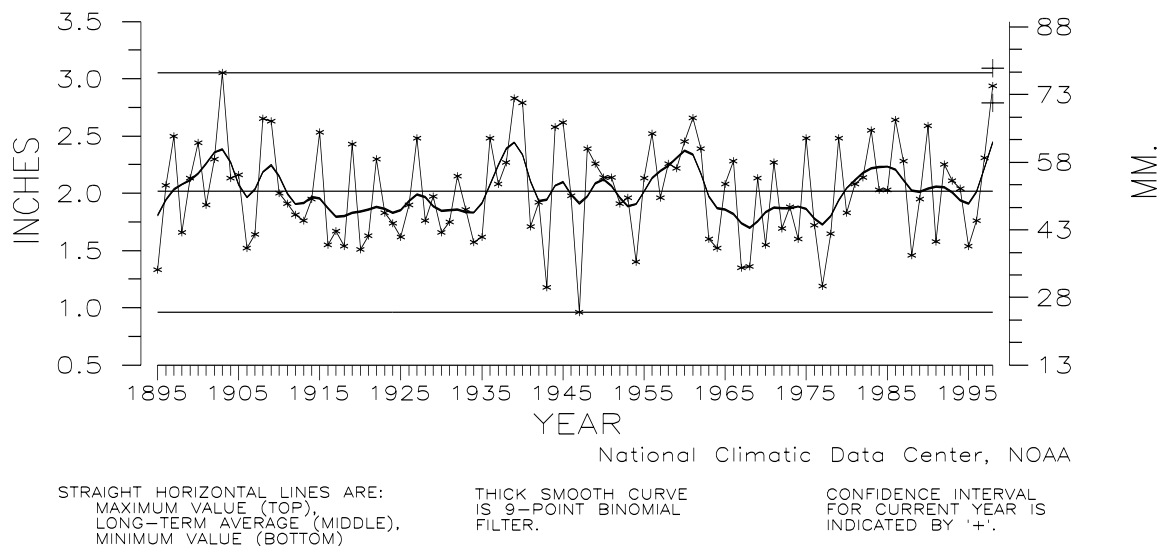


Figure 2: Preliminary precipitation data indicate that February 1998 was the second wettest such month, for the nation overall, since 1895. Over 27% of the country experienced much wetter than normal conditions while about 17% of the country was much drier than normal.

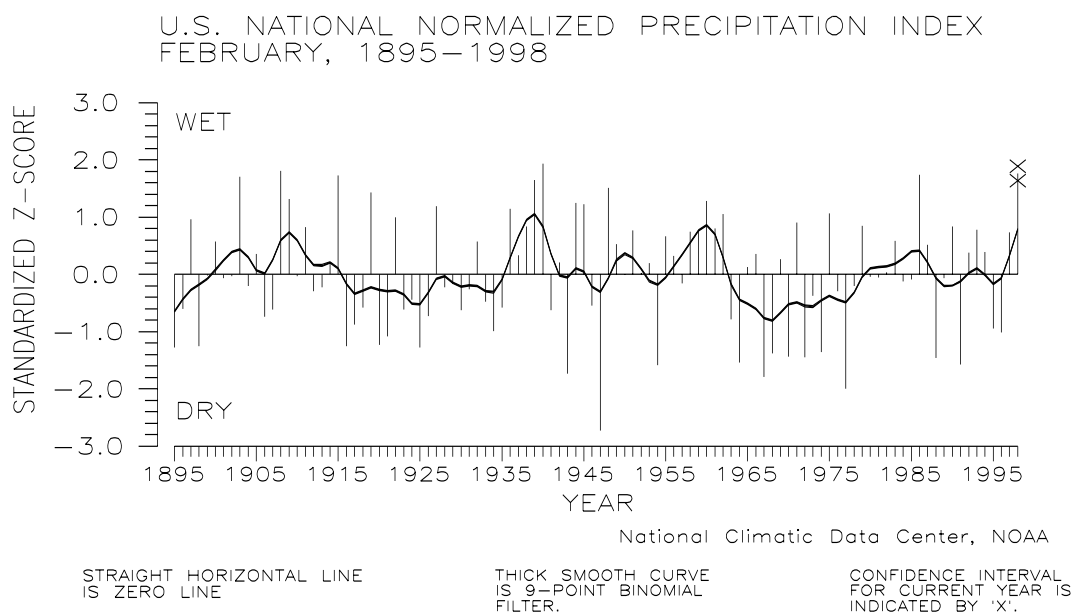


Figure 3: The preliminary national standardized precipitation index ranked February 1998 as the third wettest such month on record. This standardized z-score is estimated to be accurate to within 0.122 index units.

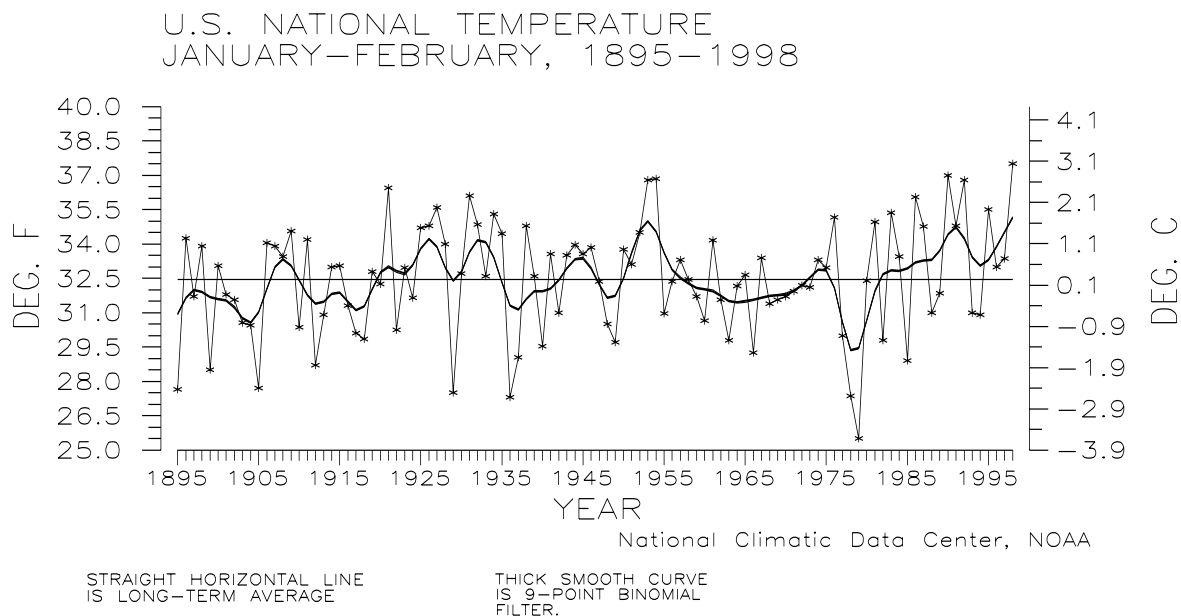
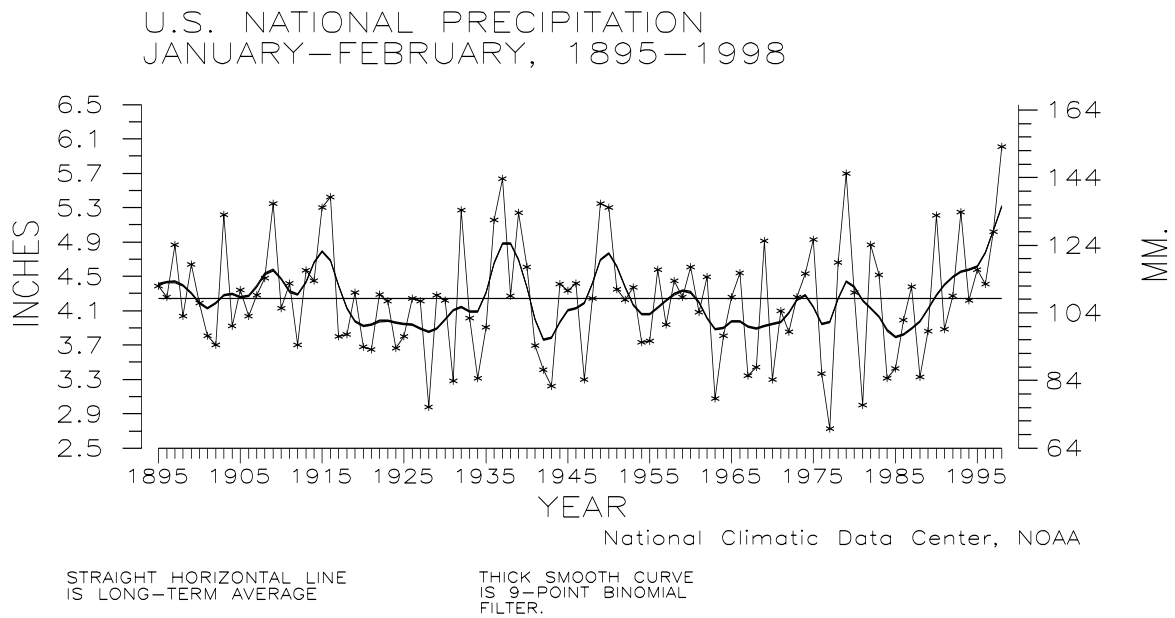
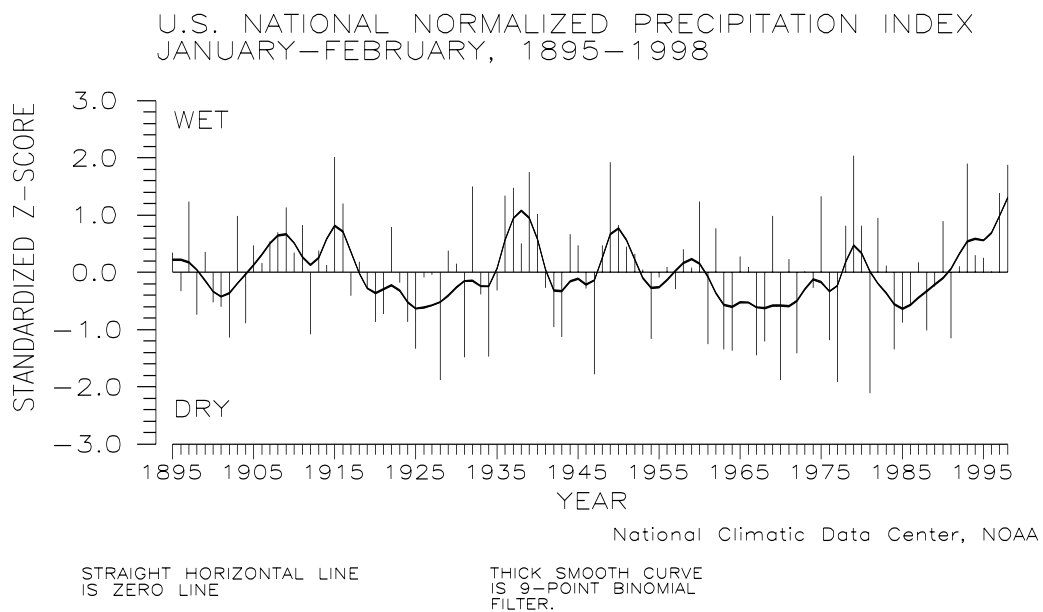


Figure 4: Based upon preliminary data, the two-month period, January–February 1998, was the warmest such two-month period on record. Over 54% of the country experienced much warmer than normal conditions while none of the country was much cooler than normal.



**Figure 5:** Preliminary data for January-February 1998 indicate that precipitation averaged across the contiguous United States was much above the long-term mean ranking as the wettest such two-month period since 1895. Over 31% of the country was much wetter than normal while less than two percent of the country was much drier than normal.



**Figure 6:** The preliminary national standardized precipitation index ranked January-February 1998 as the fifth wettest such month on record.

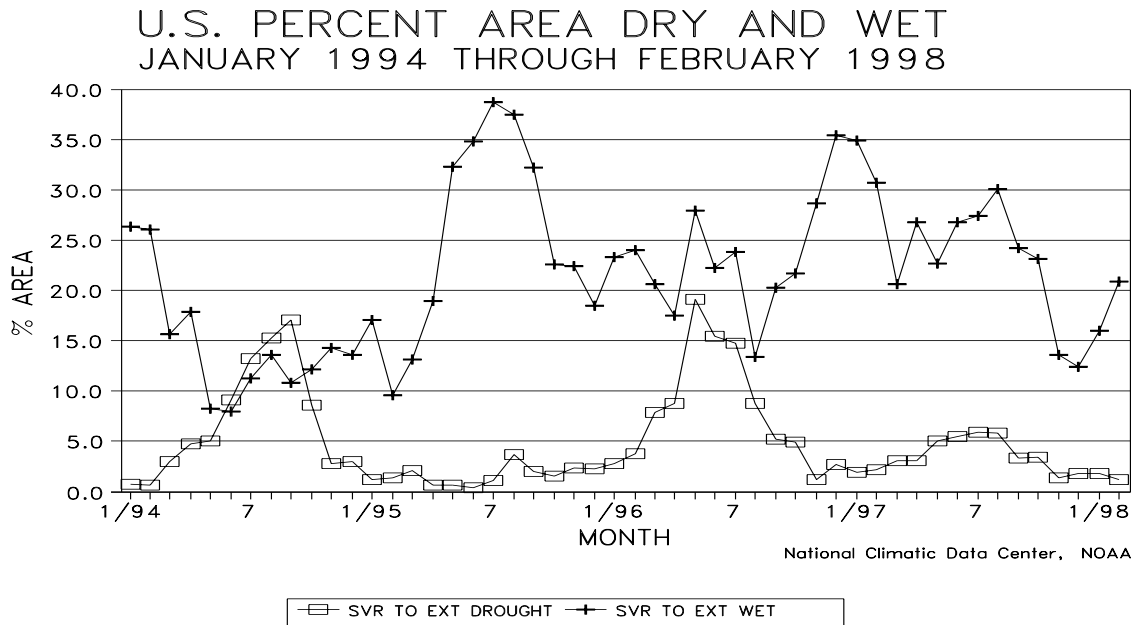


Figure 7: Long-term drought coverage (as measured by the Palmer Drought Index) remained nearly steady during February 1998 with about one percent of the country experiencing severe to extreme drought and 21% experiencing severe to extreme wetness by the end of the month. Core wet areas included California, portions of the northern Rockies and the Southeast. Core dry areas included the upper Great Lakes, areas in the Ohio Valley, and portions of the Northwest.

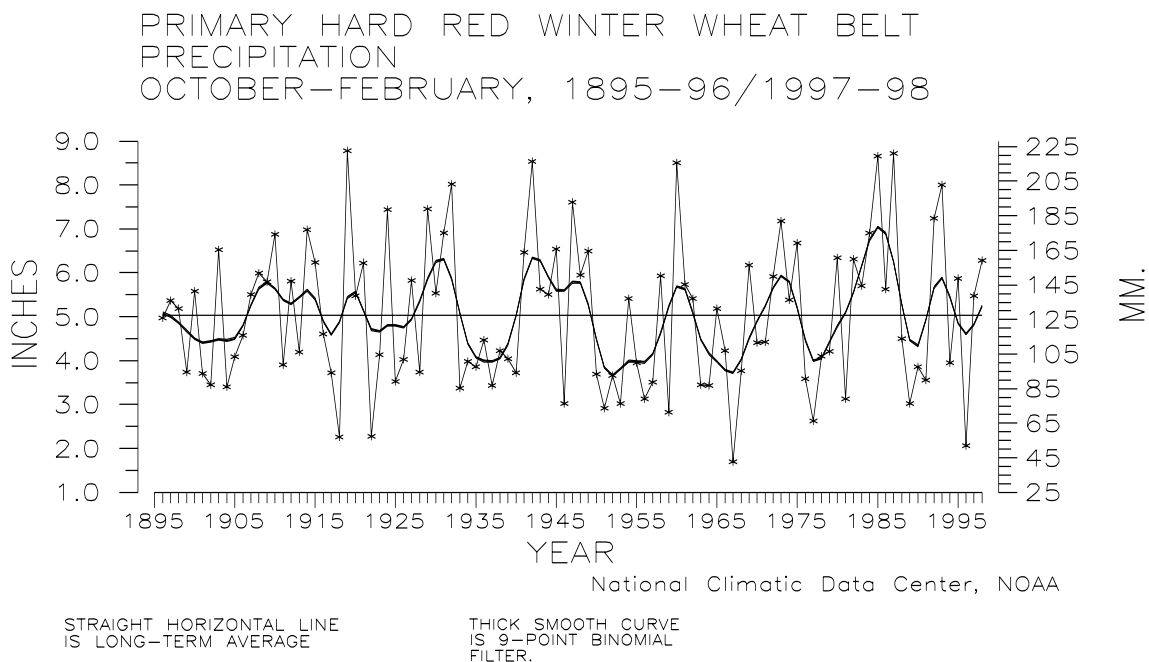


Figure 8: Total precipitation during the first five months of the growing season for the Primary Hard Red Winter Wheat Belt averaged above normal. This region includes the panhandle and extreme southern Nebraska, northeastern Colorado, all of Kansas except the extreme southeast, the western half of Oklahoma, and the Texas panhandle.

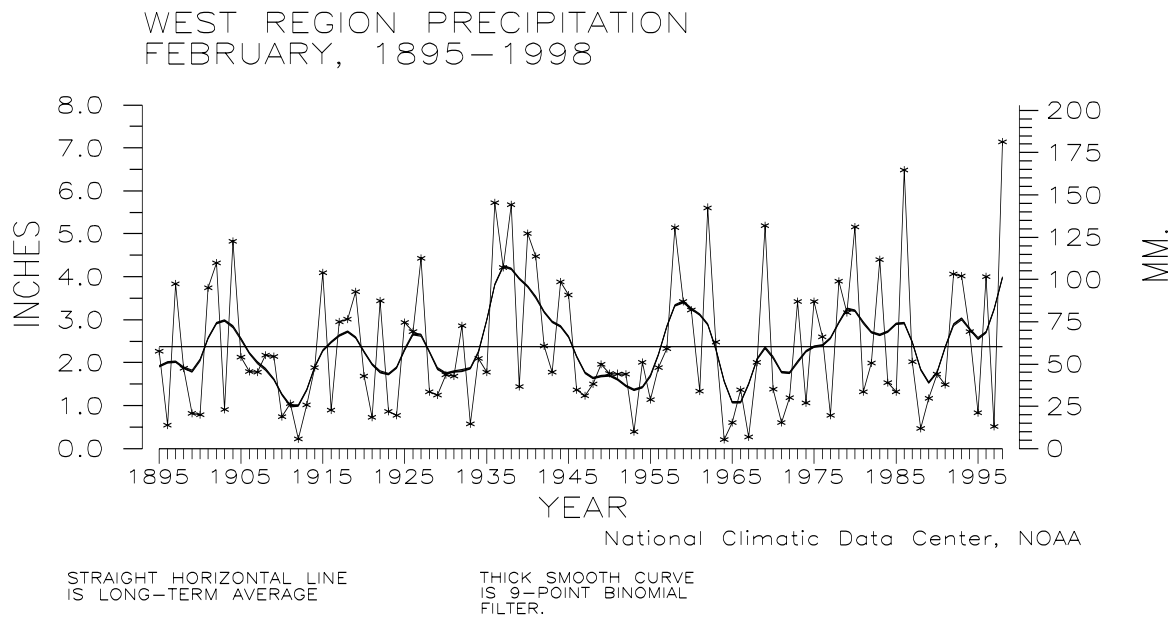


Figure 9: Based upon preliminary data, February 1998 was the wettest such month since 1895 for the West Region. The West Region includes California and Nevada. The present abnormal wetness can be, at least partially, attributed to the current El Niño episode.

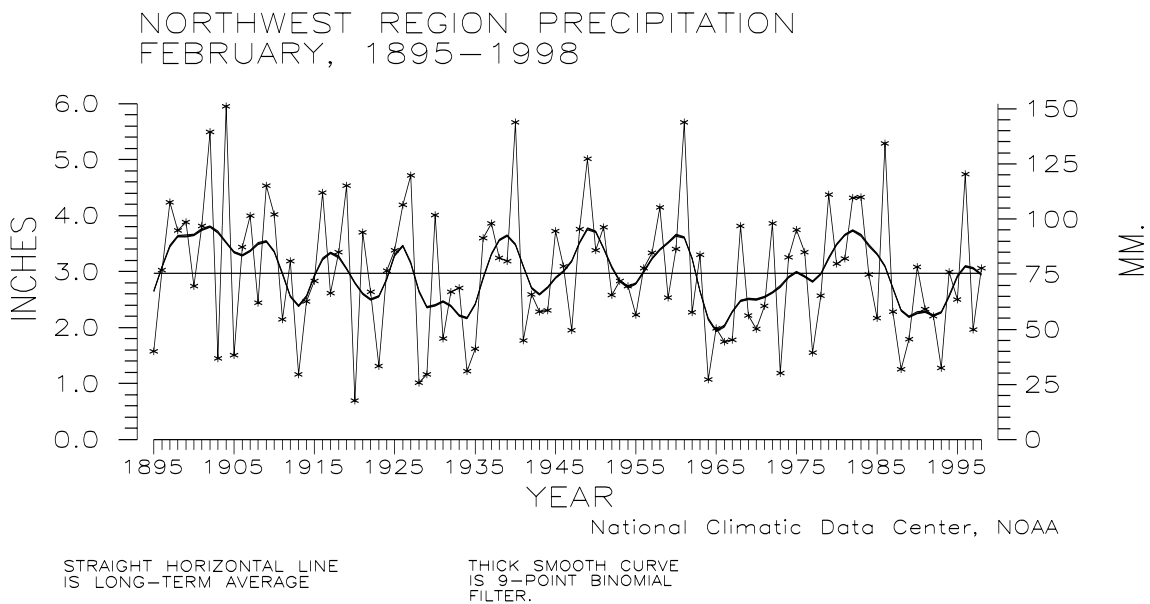


Figure 10: Preliminary precipitation data indicate that February 1998 was the 50th driest such month on record for the Northwest region. The active storm track was further south, thus major precipitation events moved onshore in California rather than Oregon and Washington and points north. The Northwest region includes Idaho, Oregon and Washington.

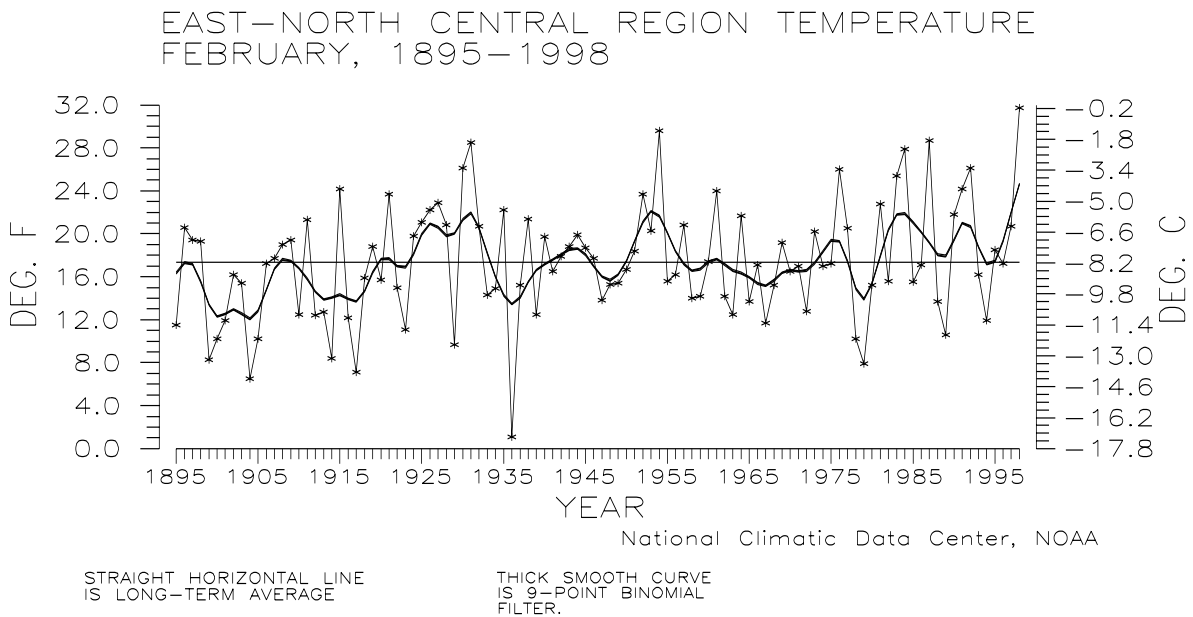


Figure 11: Preliminary data indicate that February 1998 was the warmest such month since records began for the East-North Central region. The East-North Central region includes Iowa, Michigan, Minnesota, and Wisconsin.

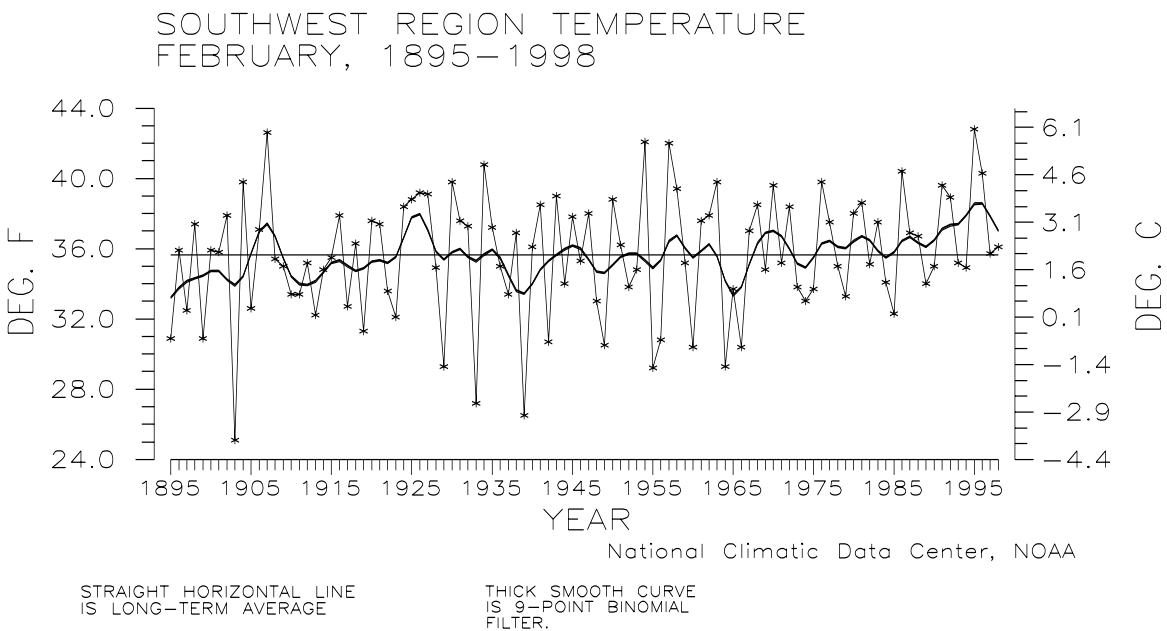


Figure 12: Based on preliminary data, February 1998 was the 49th coolest such month since 1895 for the Southwest Region. February 1998 made nine consecutive such months of near normal- to much-above normal temperatures. The Southwest Region includes Arizona, Colorado, New Mexico, and Utah.

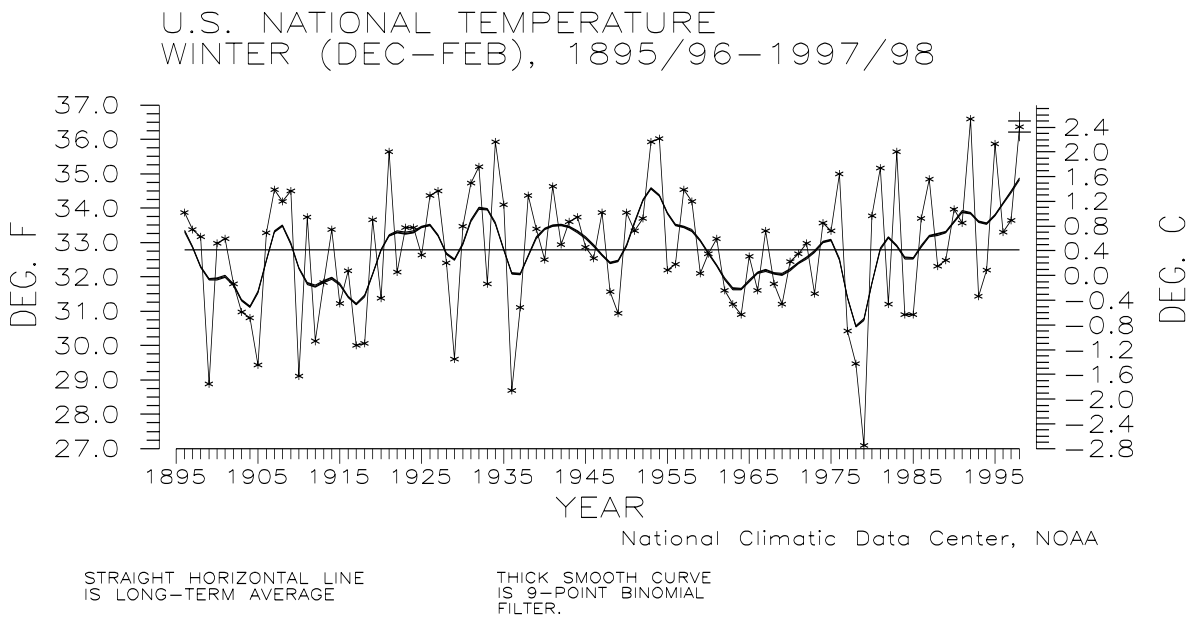


Figure 13: Based on preliminary data, the Winter season (December 1997-February 1998) was the second warmest such season since 1895. For most of the winter season, the polar front remained north of the Canadian border which prevented cold arctic outbreaks from dropping down into the contiguous United States. This is a characteristic El Nino signature.

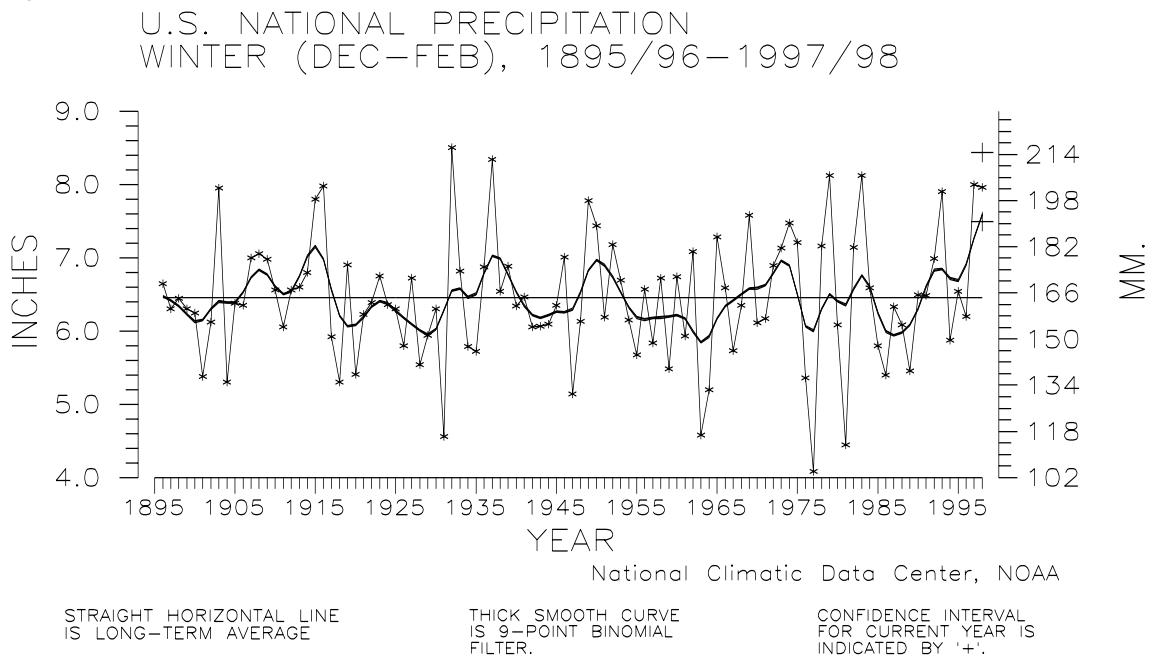


Figure 14: Preliminary data indicate that Winter 1998 (December 1997-February 1998) was the seventh wettest such season on record. Due to an abnormally strong El Nino episode, the subtropical storm track was much more active than normal and located further north than normal. This allowed for copious amounts of Pacific moisture to interact with the west coast and more intense storms to affect the gulf coast and southeastern states where numerous winter season precipitation records occurred.



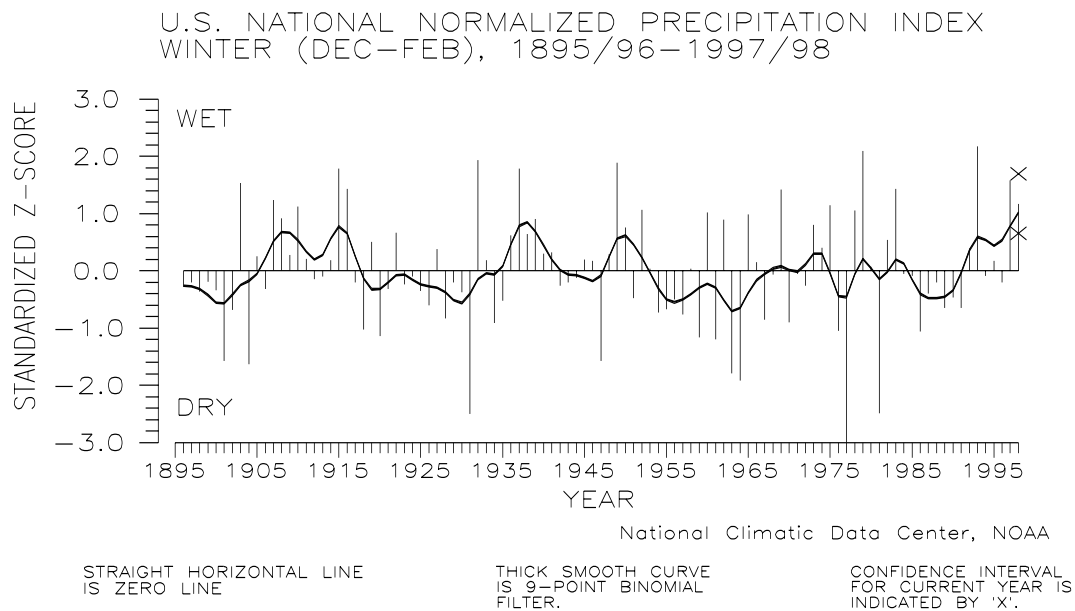


Figure 15: The preliminary national standardized precipitation index ranked Winter 1998 as the 13th wettest such season on record. This standardized z-score is estimated to be accurate to within 0.52 index units.

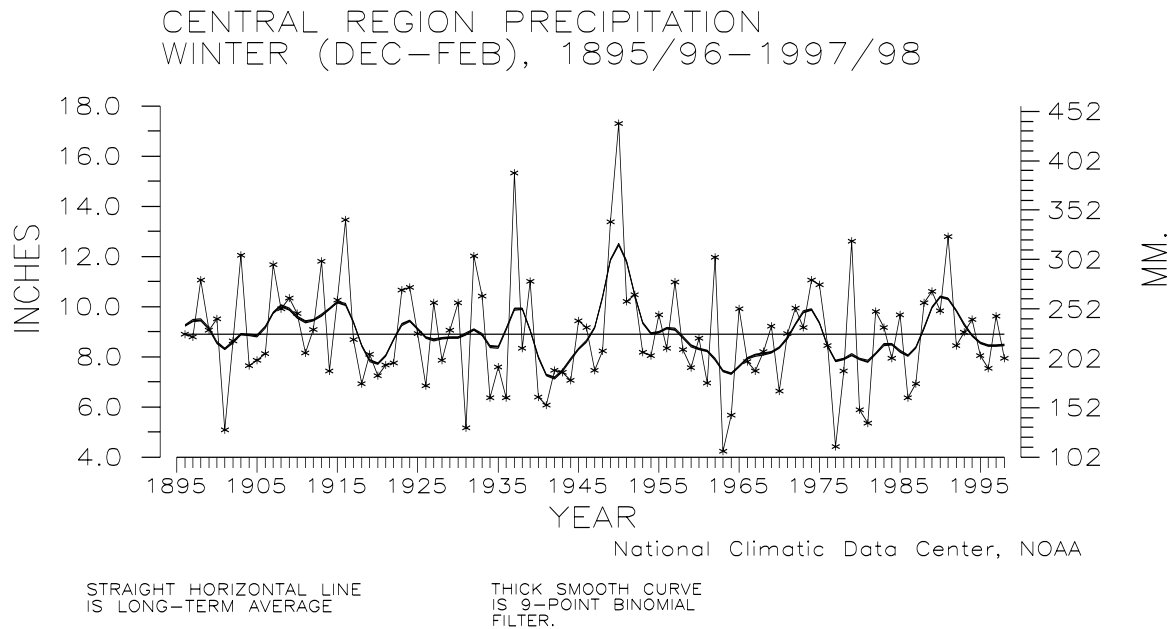


Figure 16. Preliminary data indicate that it was the 35th driest Winter season on record for the Central Region. The dominate storm track for most of the winter was south of this region. The Central Region includes Illinois, Indiana, Kentucky, Missouri, Ohio, and Tennessee, and West Virginia.

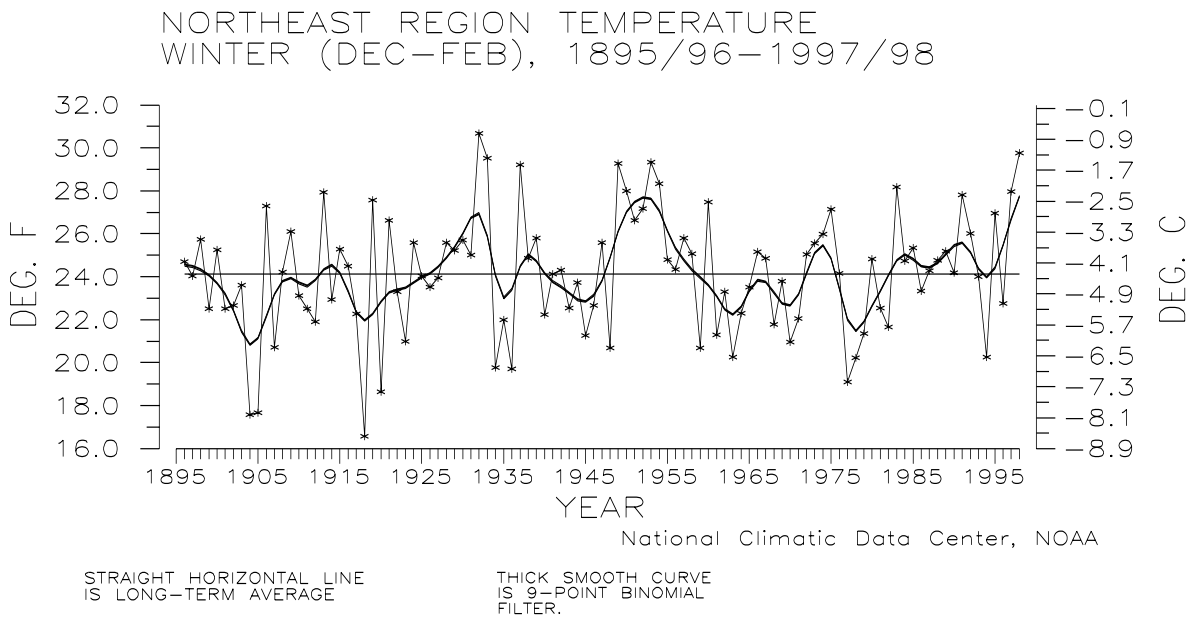


Figure 17: Based upon preliminary data, Winter 1998 was the second warmest such season since 1895 for the Northeast Region. For most of the season, the coldest air remained in Canada with only sporadic, brief events of below normal temperatures. The Northeast region includes Maryland, Pennsylvania, and all states north and east.

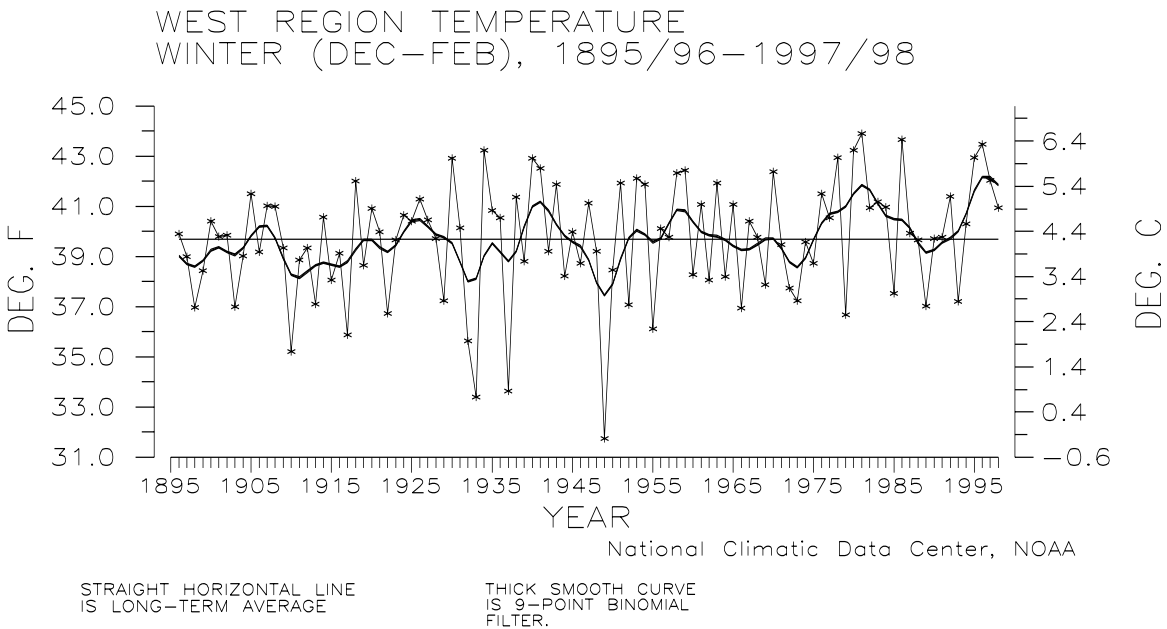
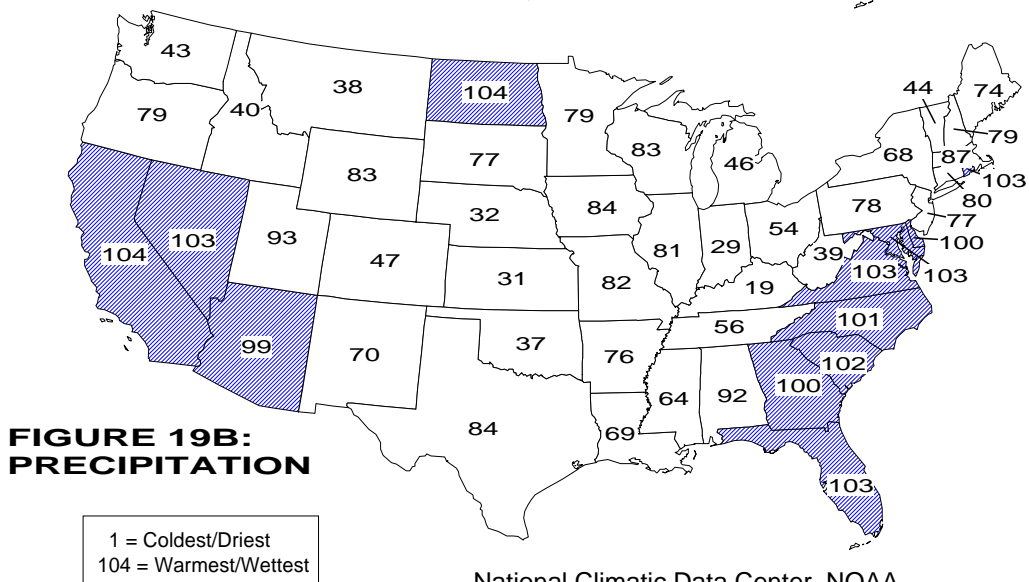
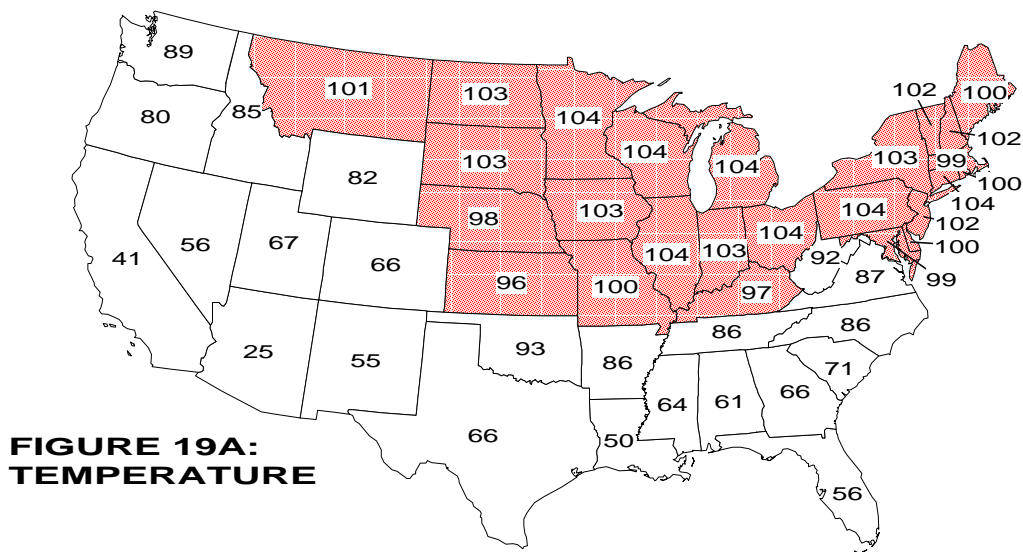


Figure 18. Preliminary data indicate that Winter 1998 was the 34th warmest Winter season on record for the West Region. The last three such seasons have been warmer than normal.

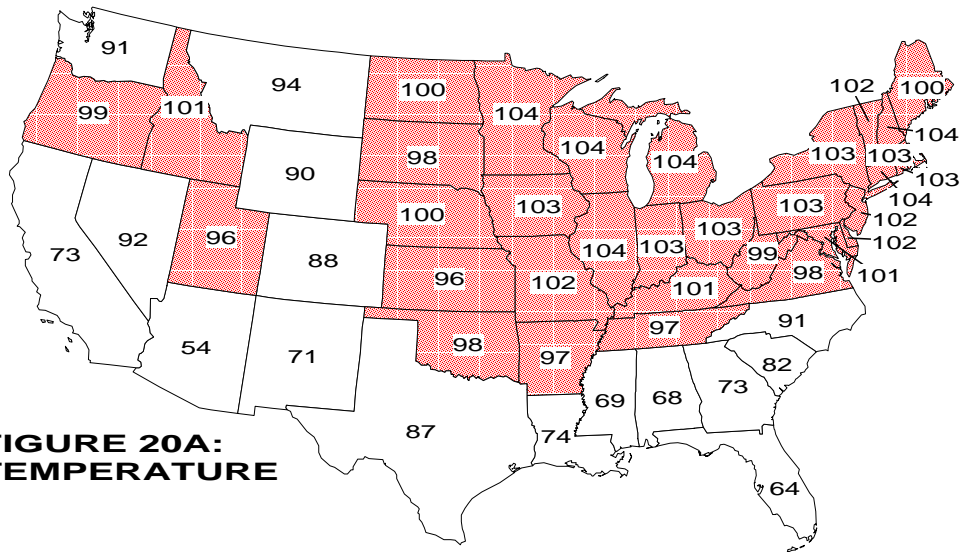
## FEBRUARY 1998 STATEWIDE RANKS



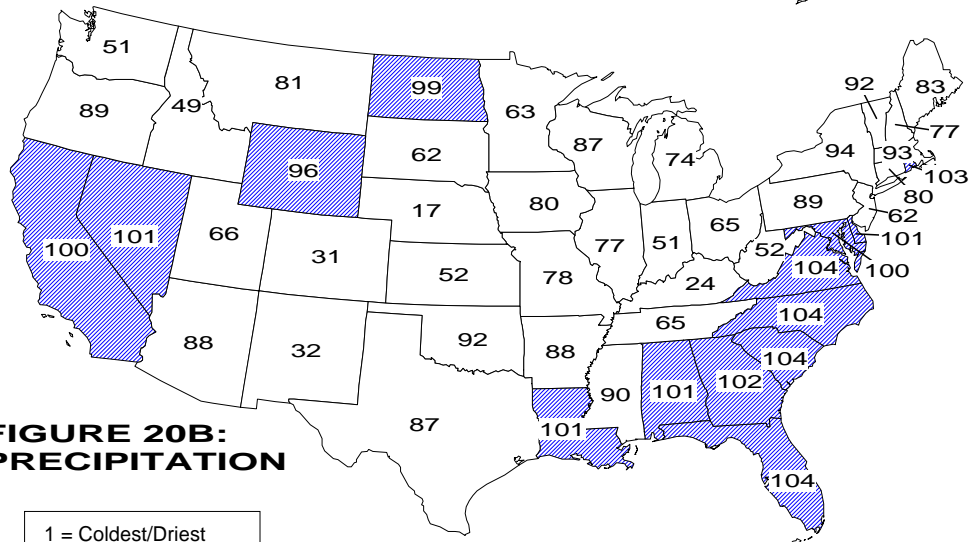
National Climatic Data Center, NOAA

Temperature and Precipitation Ranks for the contiguous United States. Each state is ranked based on its data from 1895-1998. States having a rank of top ten coldest or driest (rank 1-10) or top ten warmest or wettest (rank 95-104) are shaded.

## JAN-FEB 1998 STATEWIDE RANKS



**FIGURE 20A:  
TEMPERATURE**



**FIGURE 20B:  
PRECIPITATION**

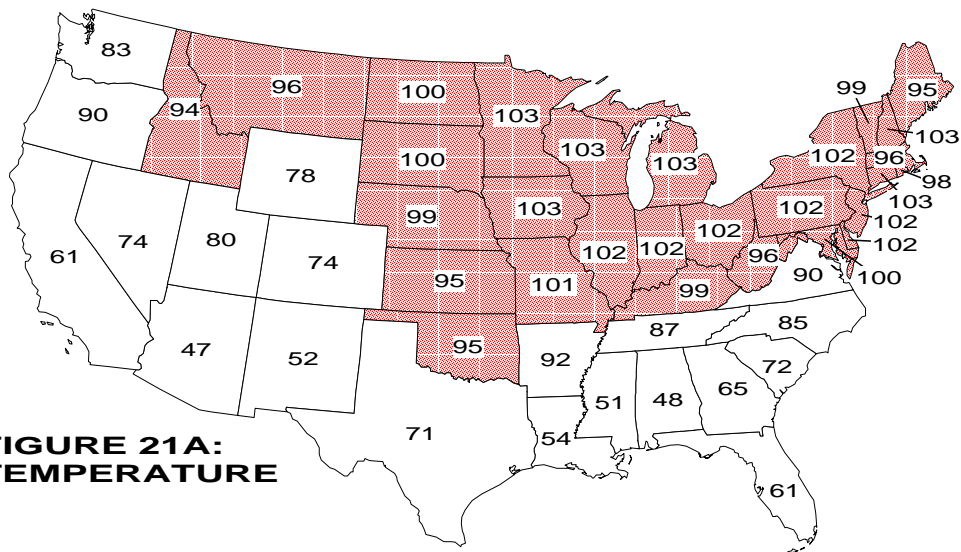
1 = Coldest/Driest  
104 = Warmest/Wettest

National Climatic Data Center, NOAA

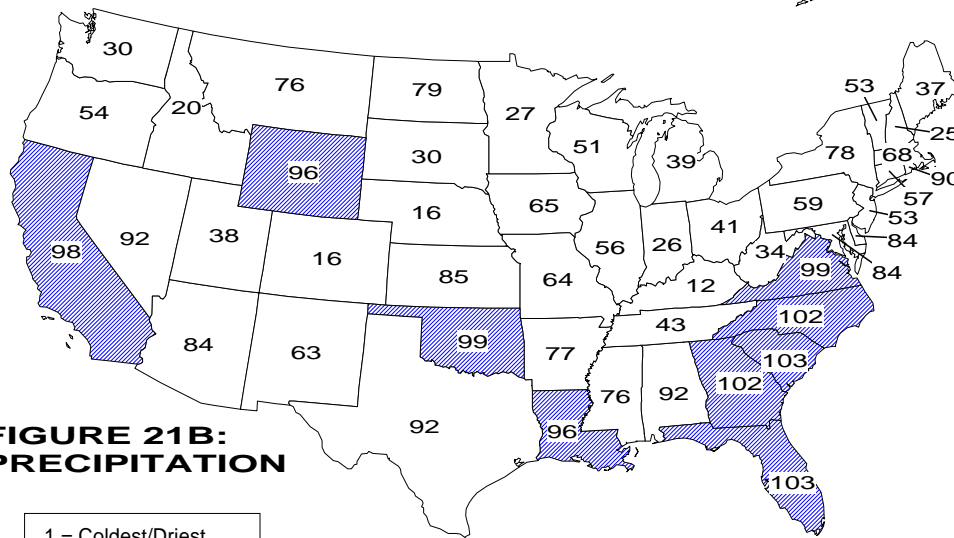
Temperature and Precipitation Ranks for the contiguous United States. Each state is ranked based on its data from 1895-1998.

States having a rank of top ten coldest or driest (rank 1-10) or top ten warmest or wettest (rank 95-104) are shaded.

## DEC. 1997-FEB 1998 STATEWIDE RANKS



**FIGURE 21A:  
TEMPERATURE**



**FIGURE 21B:  
PRECIPITATION**

1 = Coldest/Driest  
103 = Warmest/Wettest

National Climatic Data Center, NOAA

Temperature and Precipitation Ranks for the contiguous United States. Each state is ranked based on its data from 1895-1998. States having a rank of top ten coldest or driest (rank 1-10) or top ten warmest or wettest (rank 94-103) are shaded.

SSMI MEAN TEMP. ANOMALY IN CELSIUS FEB. 1998  
(SNOW COVER WITHIN OR NORTH OF 15% CONTOUR)

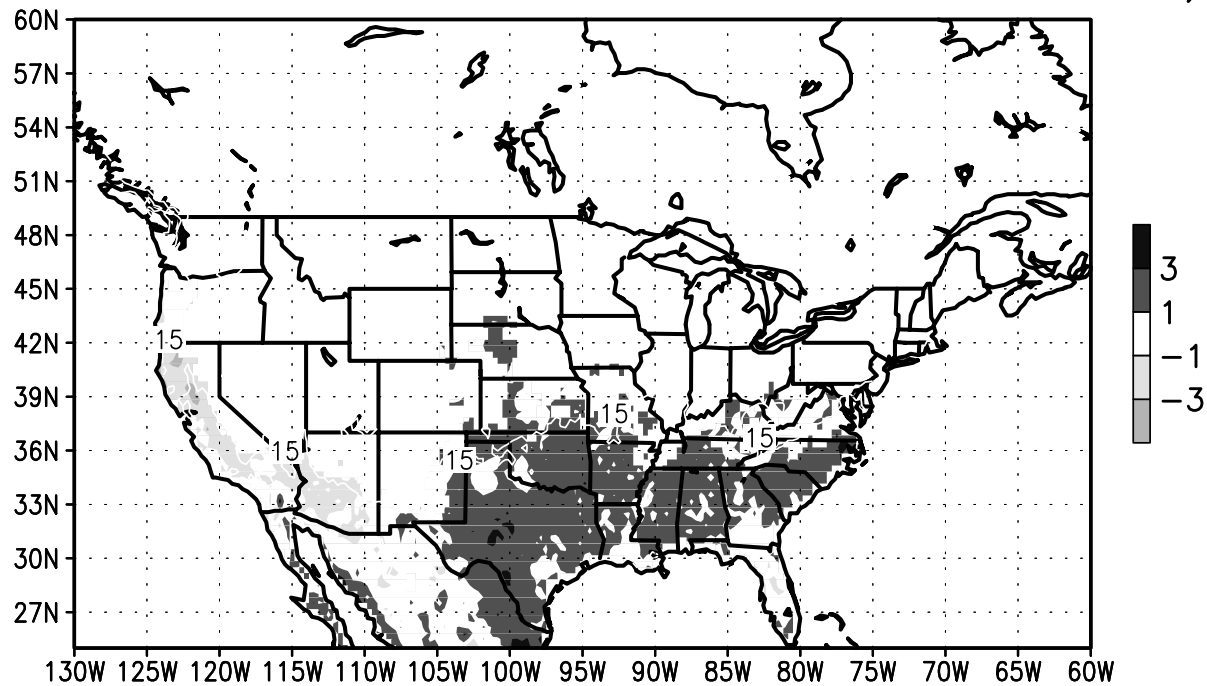


Figure 22

SNOW COVER ANOMALY (%) FEB. 1998

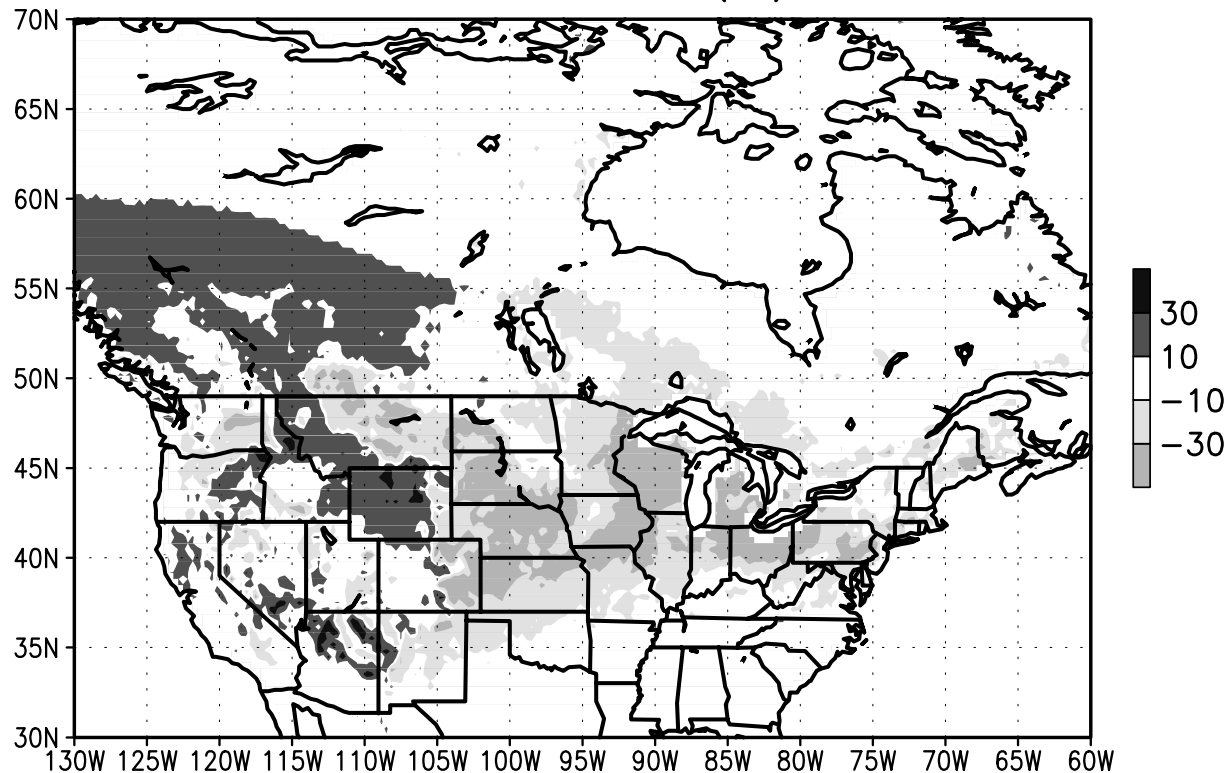


Figure 23

**Figure 19A** shows, in illustrative map form, the February 1998 statewide temperature ranks. Twenty-five states ranked within the top-ten warm portion of the historical distribution while an additional 11 ranked within the warm third. It was the warmest February on record for Connecticut, Illinois, Michigan, Minnesota, Ohio, Pennsylvania, and Wisconsin while it was the second warmest February since 1895 for Indiana, Iowa, New York, and North and South Dakota. Only Arizona, with a ranking of 25th coolest, ranked within the cool-third of the historical distribution.

**Figure 19B** shows the February 1998 statewide precipitation ranks. Twelve states ranked within the top-ten wet portion of the distribution including the wettest February on record for California and North Dakota. It was the second wettest February on record for Florida, Maryland, Nevada, Rhode Island, and Virginia. Nineteen other states ranked within the wet-third of the distribution. No states ranked within the top ten dry portion of the distribution while only four states ranked within the dry-third portion of the historical distribution. **It should be noted that these February state categorical precipitation ranks are preliminary and should be used with considerable caution due to the high variability of precipitation on a small space and time scale.**

**Figure 20A** shows, in illustrative map form, the year-to-date (January-February) statewide temperature ranks. Thirty-two states ranked within the top-ten warm portion of the historical distribution while an additional 12 ranked within the warm third. It was the warmest two-month period on record for Connecticut, Illinois, Michigan, Minnesota, New Hampshire, and Wisconsin while it was the second warmest year-to-date since 1895 for Indiana, Iowa, Massachusetts, New York, Ohio, Pennsylvania, and Rhode Island. No state ranked within the cool one-half of the historical distribution.

**Figure 20B** shows the year-to-date statewide precipitation ranks. Fourteen states ranked within the top-ten wet portion of the distribution including the wettest January-February on record for Florida, North and South Carolina, and Virginia. It was the second wettest such two-month period on record for Rhode Island. Nineteen other states ranked within the wet-third portion of the historical distribution. No states ranked within the top-ten dry portion of the distribution while only 4 ranked within the dry-third of the distribution including the 17th driest January-February period on record for Nebraska.

**Figure 21A** shows, in illustrative map form, the Winter (December 1997-February 1998) season statewide temperature ranks. Twenty-eight states ranked within the top-ten warm portion of the historical distribution including the warmest winter on record for Connecticut, Iowa, Michigan, Minnesota, New Hampshire, and Wisconsin. It was the second warmest winter season since 1895 for Delaware, Illinois, Indiana, New Jersey, New York, Ohio, and Pennsylvania. Twelve other states ranked within the warm-third portion of the distribution. Only three states, Alabama, Arizona, and Mississippi, ranked within the cool half of the historical distribution.

**Figure 21B** shows the Winter season statewide precipitation ranks. Nine states ranked within the top-ten wet portion of the distribution including the wettest Winter season on record for Florida and South Carolina. Georgia and North Carolina each had the second wettest winter since 1895. Thirteen other states ranked within the wet-third of the historical distribution. No state ranked within the top-ten dry portion of the distribution while ten ranked within the dry-third. It was the twelfth driest winter on record for Kentucky and the sixteenth driest such three-month period for Colorado and Nebraska.

**Figure 22** shows the mean monthly temperature anomalies for the month of February 1998. The base period is seven years (1992-98). This experimental product is derived from the Special Sensor Microwave Imager (SSM/I), an instrument flown on a polar orbiting satellite of the defense meteorological satellite program. The anomalies are in degrees Celsius. Below normal temperatures covered parts of California and Arizona. These areas also had excessive rain and nearly consistent overcast. From the Great Plains to the Atlantic coast, temperatures were above normal. During February, there were limited cold outbreaks from Canada and the region was generally covered by southerly winds and clouds. Areas contained within the 15% contours were either covered by snow during the month and/or the February climatology indicates that snow cover usually existed over an area and temperature anomalies could not be derived for the location from the SSM/I instrument. The satellite was unable to identify temperature anomalies over the northern tier and southwestern Rocky mountains during a good portion of February. Refer to the adjacent snow cover anomaly map for more details of these regions. Both the full and anomalous temperature fields can be observed for North America and the globe on the web at: <http://www.ncdc.noaa.gov/plwebapps/plsql/ssmimain>.

**Figure 23** shows the mean monthly snow cover anomalies for February 1998. Values represent the deviation from average (base period 1992-1998) snow cover. The anomaly represents the percentage of the month that snow cover was above/below the monthly average. This product is derived from the SSM/I. Much of the northern and central Plains, Ohio valley, mid-Atlantic, and Northeast had below normal snow cover during February. Meanwhile, most of the inter-mountain west had above normal snow cover. The above normal snow cover in this region is associated with an active storm track off the Pacific, while above normal temperatures in the east reduced the frequency of snow cover. The full and anomalous snow cover fields can be observed for North America and the globe on the web at: <http://www.ncdc.noaa.gov/plwebapps/plsql/ssmimain>.

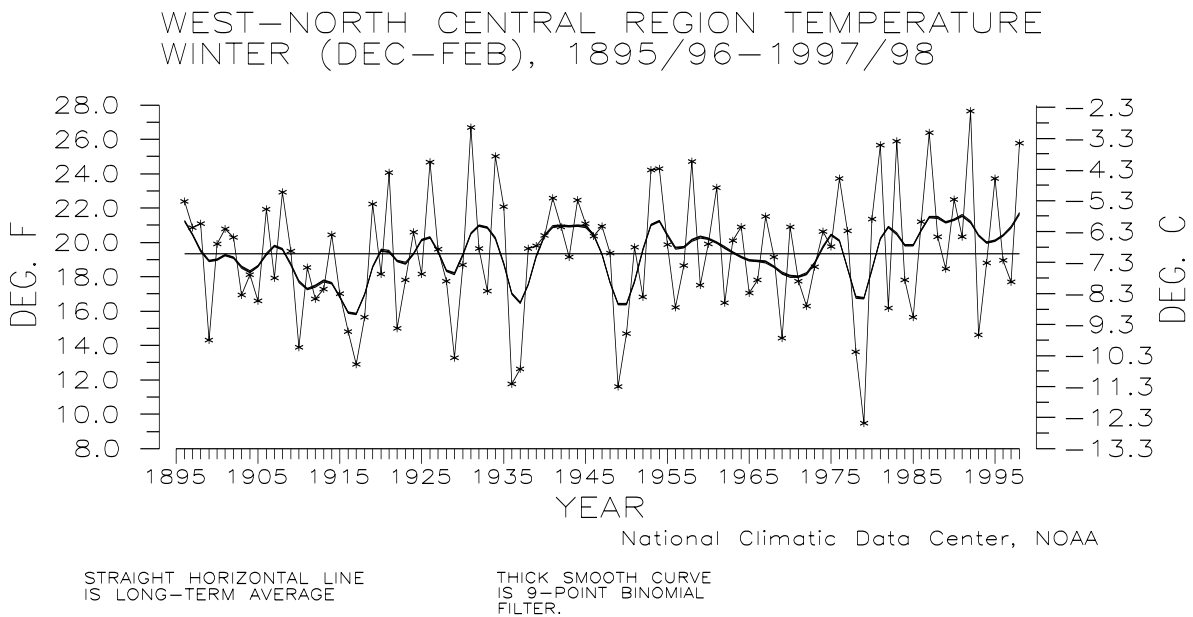


Figure 24: Based upon preliminary data, Winter 1998 was the fourth warmest such season since 1895 for the West-North Central Region. For most of the season, the coldest air remained in Canada with only sporadic, brief events of below normal temperatures. This is characteristic of an El Nino episode. The West-North Central region includes Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

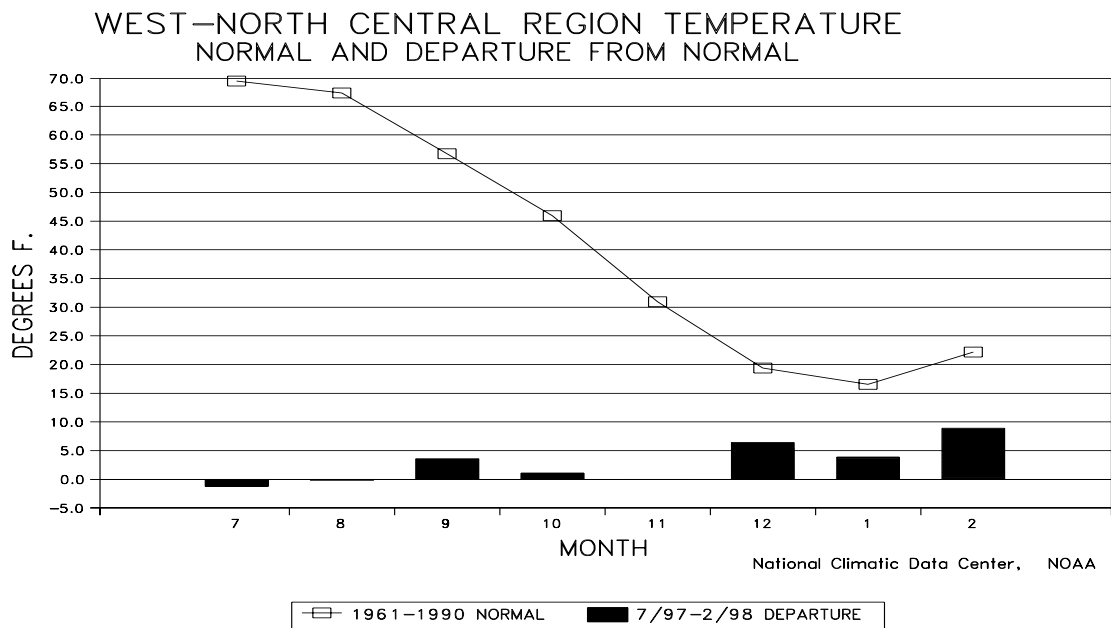


Figure 25. Temperatures for five of the last eight months have averaged above normal for the West-North Central Region with February 1998 averaging nearly nine degrees above normal. Warmer than normal temperatures are expected for this portion of the nation during an El Nino episode.



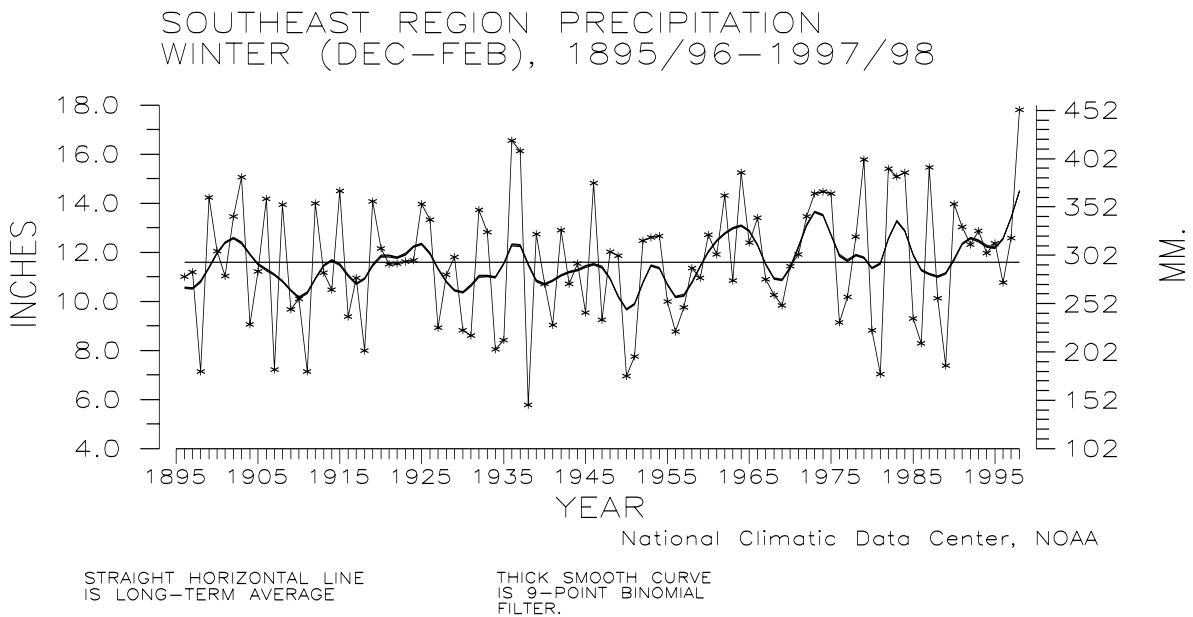


Figure 26: Based upon preliminary data, Winter 1998 was the wettest such season since 1895 for the Southeast Region. An active subtropical storm track provided copious amounts of moisture for the gulf coast and southeastern states. Past El Nino episodes have provided wetter than normal conditions for this part of the country.

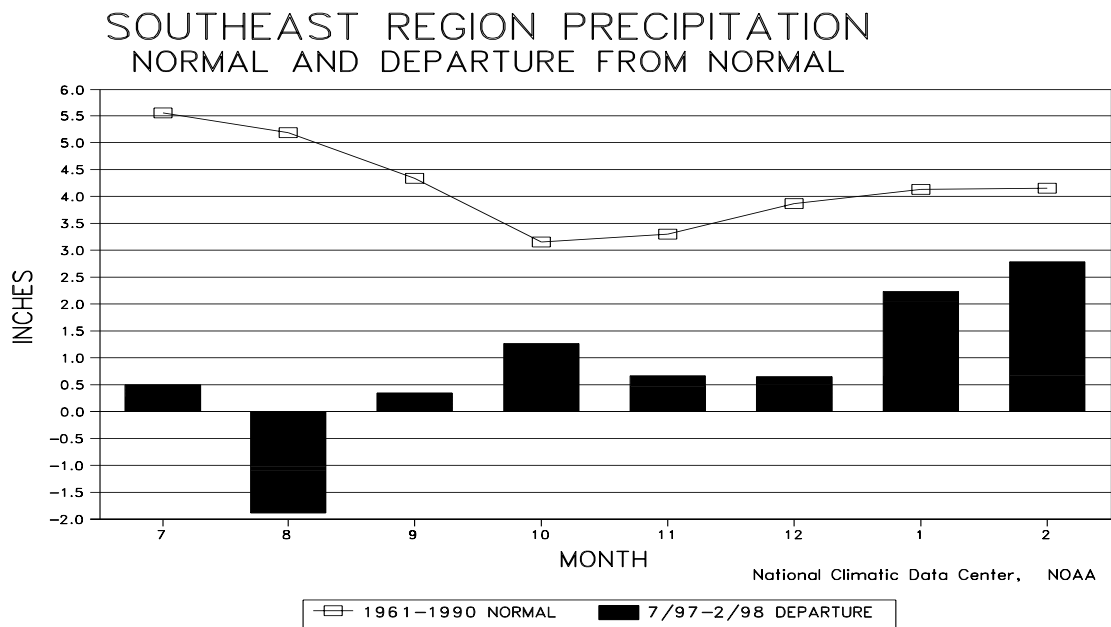


Figure 27. Seven of the last eight months have been wetter than normal for the Southeast Region including February, which was nearly three inches wetter than normal.

